



World First: Starlink and Cellular Backhaul Connectivity for Live Production of Farewell to Queen Elizabeth II

How a state funeral triggered the television industry's first ever cellular/Starlink backhaul solution for a live production

When the world's media descended upon London to cover the state funeral of Queen Elizabeth II, network availability from Hyde Park in London was somewhat restricted due to the tens of thousands of people in attendance to pay their respects, along with the hundreds of media crews. So it was up to Dejero to provide reliable backhaul connectivity of a kind that had never been used for live broadcast production before; a combination of Starlink satellite and cellular networks.

Overview

On September 19, 2022, one of the most watched events in television history took place: the state funeral of Queen Elizabeth II. The news about her passing was dropped to the media on 8th September, just one day before IBC (International Broadcast Convention) opened its doors – an annual conference and exhibition held in Amsterdam, where many of the world's broadcasters and industry vendors were headed. Many diverted to London to cover the breaking news, including Dejero teams and its customers. They had just eleven days to set-up live production operations for the state funeral, reported to have been watched globally by a total of 4.1 billion viewers.

About

Queen Elizabeth II funeral was the most watched broadcast in history with 4.1 billion viewers around the globe. Eight kilometers of people lined up to file past the queen's coffin in Westminster Hall; Almost 6,000 military personnel and 10,000 police officers were on duty; and hundreds of international broadcasters captured this momentous occasion.

The Dejero team supported its customers in Hyde Park, Central London by using a combination of high-gain antennas and Dejero EnGo mobile transmitters to create a secure LAN, with the GateWay network aggregation solution top-blending 4G cellular with satellite from Starlink to create reliable backhaul connectivity. A feat that had never been achieved before in live production.

Challenge

News events don't get any bigger, so reliable connectivity was paramount. For this historical event, the scene was a crowded Hyde Park in London, England. With tens of thousands of people paying their respects to Queen Elizabeth II, congested cellular networks were a huge challenge for newscasters. Demand for portable bandwidth at global events like this can take wireless networks to the brink of capacity and wreak havoc for competing news broadcasters.

Using public cellular networks would have meant competing with thousands of cell phones in an already congested environment. Time and cost limitations also meant that a mesh network wasn't viable.

At Hyde Park, using 4G LTE/5G connectivity wasn't an option; the broadcasters Dejero was supporting hadn't reserved the band frequency for a private network and a few days' notice wasn't enough time to apply for a license.

Another challenge was that in Hyde Park, Dejero's customers were on the very edge of Starlink network so Dejero had to think outside the box.

Solution

Dejero built a private point-to-point network which didn't need regulatory approval.

Setting up an Ubiquiti access point and high-gain antennas across Hyde Park, Dejero created a secure LAN for its clients using their award-winning EnGo mobile transmitters. The EnGo devices encoded the camera feeds and transmitted the signals by blending a combination of ethernet, Wi-Fi and local cellular network connectivity. The devices also prioritized the network with the most bandwidth available, transmitting to an onsite Dejero GateWay network aggregation solution for backhaul.



Camera operators use Dejero EnGo mobile video transmitters to broadcast live from Hyde Park.

Essentially, GateWay enabled Dejero’s customers in Hyde Park to send live video feeds to the outside world, back to their media hubs for broadcasting via Starlink/cellular connectivity backhaul. This was the first time a combination of LEO satellite connectivity with cellular for backhaul had been used for live broadcast production.

“ We used that GateWay with Starlink to create a backhaul that allowed that content to go out live around the world for our customers and that’s quite a unique sort of scenario to be in, certainly the first time we have worked in that type of way, and certainly the first time for our customers to have had that kind of backhaul support from a congested and contended area. ”

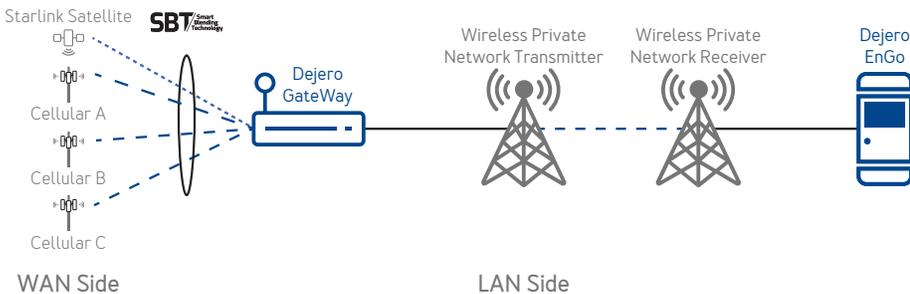
Rob Waters, Director Global Sales at Dejero



Dejero EnGo video transmitters are quick to deploy and easy to use, allowing journalists to easily and reliably transmit high-definition, real-time video from the field.

The GateWay uses Dejero’s award-winning *Smart Blending Technology™*, which aggregates all available IP networks, in this case Starlink and cellular - and dynamically manages fluctuating bandwidth, packet loss, and latency differences of individual connections in real-time. This technology creates a single virtual ‘network of networks’ to provide access to a far greater coverage area than any single provider can deliver. What’s more, if any single connection becomes congested, the system can automatically reroute packets in real-time across other connection paths.

Regardless of whichever private network is used for acquisition, a reliable and robust backhaul is essential to transport content back to the station for distribution. With the eyes of the world on the unfolding events, Dejero made history of its own to guarantee uptime.



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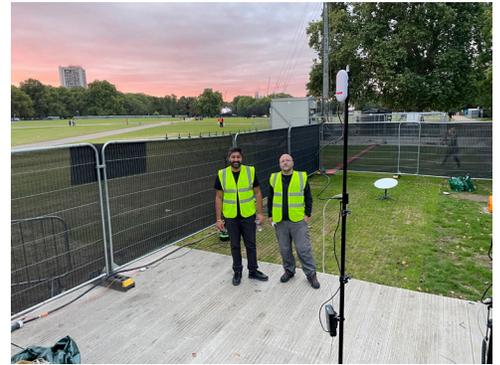


Results

It was the first time live broadcasting has blended Starlink and cellular together for backhaul, and it meant that broadcast customers taking advantage of this innovative solution could go live to air from an area where cellular connectivity was already highly congested. The GateWay's *Smart Blending Technology* also manages fluctuating latency by aggregating all available networks, reducing some of the latency inherent in satellite-only connectivity.

The world's appetite for news is insatiable and immediate, and news agencies are always looking to be first on the scene. Luckily, there are more options than ever to provide reliable and secure on-location reporting, whatever the environment.

Creating a temporary private network and resilient backhaul connectivity was essential to overcome these challenges and ensure uninterrupted connectivity for broadcasters from around the globe to cover this sombre occasion.



Dejero helps customers overcome connectivity obstacles with industry-leading solutions.

Content is king. Connectivity is kingmaker. We're here to help you acquire, produce, and distribute your content with critical connectivity.

Start the conversation today

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